State Diagrams

Last updated 1/10/20

State Diagrams

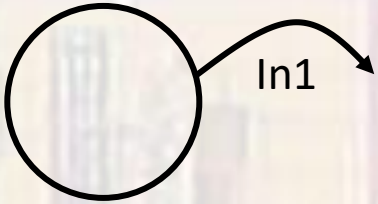
- These slides introduce State Diagrams
- Upon completion: You should be able to read and create state diagrams for finite state machines

State Diagrams

- Finite State Machine
  - State Diagram – Moore
    - State

    - Outputs

    - Inputs
    - Conditions



State Diagrams

- Finite State Machine
  - State Transition Diagram – Moore
    - Transitions ONLY occur on clock edges (rising)
    - Transitions occur on EVERY clock edge (rising)
    - Priority stop light – Inputs: Reset, Traffic N/S, Traffic E/W

    - State 0 : NS light state variable (memory) holds code for green
      EW light state variable (memory) holds the code for red

    - State 1 : NS light state variable (memory) holds code for yellow
      EW light state variable (memory) holds the code for red

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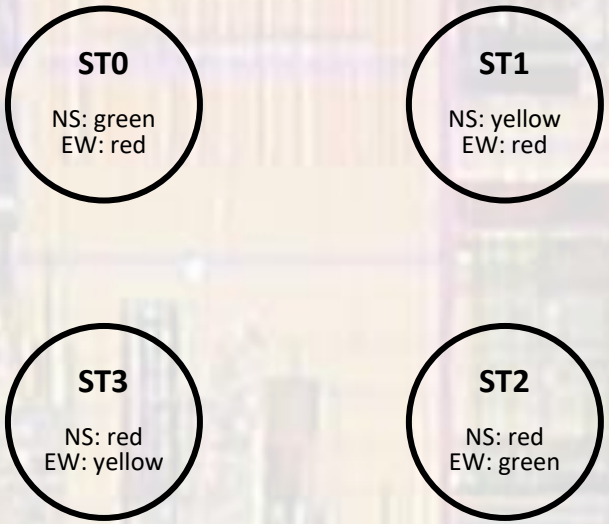

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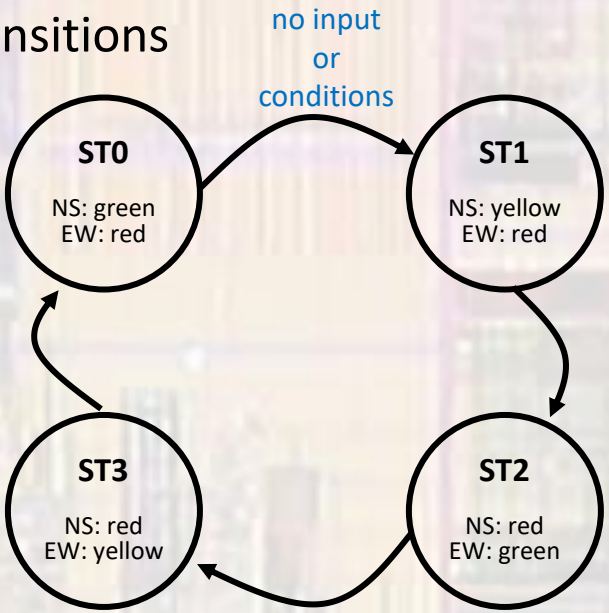
    - Basic transitions



If we did not sense for traffic – this would be complete

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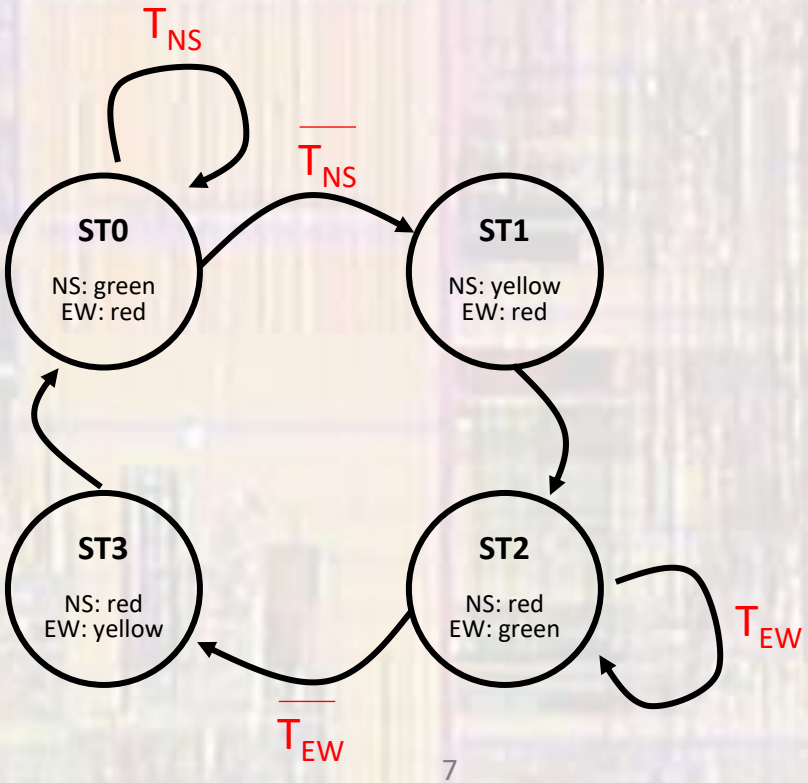

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